

THE HOUSEHOLD PRESERVATION OF EGGS

BY FRANK T. SHUTT, M.A., D.Sc., DOMINION CHEMIST

The preservation of eggs for household use is a matter which has received much attention from the Division of Chemistry; indeed, experiments in egg preservation begun as early as 1898 have been continued, almost without break, until the present time. In the course of this work a very large number of preparations—fluid and solids—sold as egg preservatives, have been under trial—with results good, bad and indifferent. The outcome of this investigational work is that two preservatives, (1) Lime-water and (2) "Water-glass," have been proven eminently satisfactory and distinctly superior to the large number of the preparations tested. Both are effective preservatives in yielding sound and wholesome eggs but lime-water has given, in the majority of experiments, somewhat better results and moreover is cheaper and pleasanter to use than water-glass. Repeated trials, over many years, permit us to confidently recommend lime-water as a reliable preservative for the putting down of eggs for winter use in domestic cookery. And here it may be remarked that no preservative has been found which would entirely arrest the development of that "stale" flavour so characteristic of preserved or packed eggs—a certain deterioration in quality will inevitably take place and for table use such eggs are unmistakably and distinctly inferior to fresh eggs. Nothing has been discovered that will serve to retain without a suspicion of taint the fine flavour of the strictly new-laid egg.

LIME-WATER

Preparation: Lime-water is prepared by slaking freshly burnt quick lime, thinning with water to the consistency of cream and further diluting, with *constant stirring*, to the desired volume. The resultant lime-water may be used at once—without settling—or allowed to stand for an hour or so and the clear upper liquid poured off from the deposit of undissolved (excess) lime. By following these directions and using quick-lime at the rate of 1 pound to 5 gallons of water, a "saturated" lime-water will be prepared suitable and satisfactory for the preservation of eggs.

Use: The eggs previously placed in a crock, water-tight barrel or other suitable receptacle, are covered with the lime-water. Store in a cool place.

Some authorities have advocated the addition of salt to the lime-water. Our experiments have not shown any benefit from this practice; indeed, salt by inducing an interchange of fluids within and without the egg, frequently imparts a limey flavour to the preserved egg. Our advice, therefore, is not to add any salt to the lime-water.

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As exposure to the air tends to precipitate the lime (as carbonate) from the lime-water and thus to weaken the preservative, the vessel containing the eggs should be kept covered. The air may be excluded by a covering of sweet oil, or by sacking upon which a paste of lime is spread. If after a time there is any noticeable precipitation of the lime, the lime-water should be drawn or siphoned off and replaced with a further quantity of newly prepared solution.

WATER-GLASS

This well-known preservative, chemically known as silicate of soda, is readily obtainable at druggists and grocers, being sold in both liquid and solid form. It has been extensively experimented with, using solutions varying in strength from 2 to 10 per cent, i.e. 2 pounds to 10 pounds per 100 gallons of water; in our investigation a 5 per cent solution has given better results than stronger solutions. It is readily soluble and no special directions for preparing the preservative solution are necessary.

The results from "water-glass" have on the whole been very fairly satisfactory but as already stated we consider lime-water the superior preservative—the eggs, on breaking, showing less discoloration of the "whites" with more globular yolks.

ESSENTIALS NECESSARY TO GOOD RESULTS

1. That perfectly fresh eggs only should be used.
2. That the eggs throughout the whole period of preservation should be completely immersed. Do not take them out of the solution until required for use.
3. That the eggs should be stored in a cool place. A temperature of 40° to 45° F. undoubtedly materially assists towards retaining good flavour, or, put otherwise, in arresting that "stale" flavour so characteristic of packed eggs.

THE GLYCERINE PROCESS FOR THE TREATMENT OF EGGS

This is apparently a misnomer, as glycerine, so far as the writer can learn, is not used in the process, which consists of momentarily (say, about 5 seconds) dipping the eggs (which have been "pickled" in lime-water) in dilute muriatic acid, between 1 per cent and 2 per cent. This acid dissolves any incrustation of the shell and gives the eggs a fresh appearance, i.e. as if they had been treated with glycerine. Immediately on withdrawing the eggs from the acid they are well washed with water, as with a hose, to prevent further action of the acid, and dried. This immersion in acid lessens the tendency to shell-cracking when the pickled egg is boiled. Eggs should not be subjected to this treatment till about to be used, since the keeping quality of the egg is materially affected by the process. While the treatment is favoured by the trade for the improvement which it effects in the appearance of stored eggs, it is not one that is either necessary or desirable for eggs preserved by the householder.

The addition of glycerine to various egg-preservative fluids has been tried at the Experimental Farm, but in no case did it prove satisfactory. The general effect was to induce the growth of mould.